

REMARKS

Prior to the entry of this Amendment, Claims 1-4 and 6-12 were pending and under consideration. With this Amendment, Claims 13-20 have been added. Thus, after entry of this Amendment, Claims 1-4 and 6-20 are pending and under consideration.

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The Amendments of the Specification

The specification has been amended to correct obvious typographical errors and to delete an embedded hyperlink. No new matter is introduced by this amendment.

10 **The Amendments of the Claims**

Claim 1 has been amended to delete a comma in order to clarify the nature of the request. Claim 1 has also been amended to indicate that the order is for at least one genomics product. Basis for this amendment is found, for example, in the specification at page 3 lines 3-5 and page 6 lines 24-25.

15 Claim 3 has been amended to delete a semicolon and a comma and to clarify the antecedent basis for the phrase "said second request". Basis for this amendment can be found, for example, at page 3 lines 5-10.

20 Claim 4 has been amended to insert the word "and" in order to clarify the nature of the genomic product group. Reference to Claims 1 and 2 has been cancelled in order to clarify the relationship between Claims 3 and 4.

In Claims 1, 3, 4 and 7, the word "genomic" has been replaced by "genomics" in order to make consistent use of the term "genomics". Basis for this amendment is found, for example, in the specification at page 4 line 8.

Claim 8 has been amended to further describe the relationship between the first and second single-stranded polynucleotides and the relationship between the homologue and the first nucleic acid sequence. Basis for this amendment is found, for example, in U.S. Patent No. 6,074,853, column 17 lines 25-49, which patent is incorporated in its entirety by reference
5 into the instant application as indicated at page 15 lines 17-18.

Claim 10 has been amended to correct a typographical error in the word "form". Basis for this amendment is found, for example, at page 3 line 13-15.

Claim 11 has been amended to clarify the nature of the computer program. Basis for this amendment is found, for example, at page 5 lines 6-8, page 6 lines 8-10 and page 6 lines
10 16-26.

Claim 12 has been amended to correct the spelling of the word "a". Basis for this amendment is found, for example, at page 7 line 12.

Basis for newly added Claims 13 and 14 is found, for example, at page 6 lines 16-26.

Basis for newly added Claim 15 is found, for example, at page 5 lines 27-30.

15 Basis for newly added Claim 16 is found, for example, at page 8 lines 3-4.

Basis for newly added Claim 17 is found, for example, at page 7 lines 9-11.

Basis for newly added Claim 18 is found, for example, at page 7 lines 17-19.

Basis for newly added Claim 19 is found, for example, at page 7 lines 4-5.

Basis for newly added Claim 20 is found, for example, at page 6 lines 1-7, page 6 lines
20 16-26, page 7 lines 4-5, and page 7 lines 17-19.

Basis for claims concerning a request comprising a website customer interface is found, for example, at page 6 lines 16-26.

These amendments do not introduce new matter.

Objections to the Specification

- 5 The specification was objected to because it was alleged to include an embedded hyperlink and to contain spelling errors. The reference to a hyperlink has been deleted and spelling errors have been corrected by amendment.

Objections to the Claims

- 10 Claims 10 and 12 were objected to allegedly for minor informalities related to grammatical usage. Claims 10 and 12 have been amended to correct these informalities.

Rejection of Claims 1-4 and 6-12 Under 35 U.S.C. §112, Second Paragraph

- 15 Claims 1-4 and 6-12 were rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

- 20 Claims 1-4 and 6-11 were rejected due to inconsistent use of a comma and semicolon in Claims 1, 3, 9, 10 and 11. The meaning of the term “request” was alleged to be unclear. The claims have been amended to clarify that the request comprises both a nucleic acid sequence and an order.

Claim 4 was rejected because a phrase referring to multiple claims allegedly lacked antecedent basis. The dependency of Claim 4 has been amended and now has proper antecedent basis.

5 Claim 8 was rejected because the term “substantially complementary” was allegedly being vague and indefinite. The claim has been amended and now includes the limitation that the first single-stranded targeting polynucleotide has at least 70% sequence identity as compared to the second.

Claim 8 was rejected because the term “or a homologue thereof” was allegedly being vague and indefinite. The claim has been amended and now includes the limitation that the
10 homologue is at least 70% homologous to said first single-stranded targeting polynucleotide.

Claim 12 was alleged to be indefinite because the claim did not end in a period. A period has been added by amendment to the end of Claim 12.

Applicant believes the amendments address all of the Patent Office’s concerns, and requests that the rejection of Claims 1-4 and 6-12 under 35 U.S.C. §112, second paragraph, be
15 withdrawn.

Rejection of Claims 1-4, 6, 9, 11 and 12 Under 35 U.S.C. §103 (a)

Claims 1-4, 6, 9, 11 and 12 were rejected under 35 U.S.C. §103 (a) as allegedly being unpatentably obvious over Layne (U.S. Patent No. 5,841,975) in view of Seilhamer (WO
20 06/23078). The rejection is traversed on the ground that the Patent Office has failed to establish a *prima facie* case of obviousness.

In rejecting claims under §103(a), the Patent Office bears the burden of establishing a *prima facie* case of obviousness (MPEP § 2142). To establish a *prima facie* case, three basic criteria must be met. First, there must be some suggestion or motivation, either in the
25 references themselves or in the knowledge generally available to one of ordinary skill in the

art, to modify the references or to combine their teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference(s) must teach or suggest each and every limitation of the rejected claims. The teaching or suggestion to make the claimed combination *and* the reasonable expectation of success must *both* be found in the prior art, and *not* in Applicants' disclosure. *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP §2142.

Claim 1, and claims depending therefrom, recite a method for providing integrated genomic services. The method includes receiving a first request from a customer, wherein the request comprises a first nucleic acid sequence and an order for at least one genomic product, wherein the request optionally is made using a website customer interface that comprises a filed for a customer identification number, a field for a nucleic acid sequence and a field for at least two genomics products. The method includes utilizing the nucleic acid sequence to provide the at least one genomic product.

Claim 9 recites a method for providing integrated genomics services. The method includes (a) receiving a first request from a customer comprising a first nucleic acid sequence and an order for at least one first genomic product or service; (b) receiving a second request from the same or different customer comprising a second nucleic acid sequence and an order for at least one second genomic product or service, wherein said first and said second request optionally comprise a website customer interface (as described above in relation to Claim 1); and (c) utilizing the first and said second nucleic acid sequences to provide said first and said second genomic product or service to said customers.

Claim 10 recites a method for providing an integrated genomic service. The method includes (a) receiving a first request from a customer comprising a first nucleic acid sequence and an order for at least one genomic product or service, wherein the request optionally is made using a website customer interface (as described above in relation to Claim 1) and (b) utilizing the first nucleic acid sequence in a recombinase mediated process to form said at least one genomic product.

Claim 11 recites a computer program for integrating the provision of genomic services and products. The program includes a request receiving module including instructions for: (a) receiving a first request from a customer, wherein said request comprises a first nucleic acid sequence and an order for at least two genomics products, wherein the request optionally is
5 made using a website customer interface (as described above in relation to Claim 1), and (b) processing said request to obtain said at least two genomics products.

Seilhamer concerns a database for storage of microbiological information such as cDNA sequencing data, match logs, and various other data. Layne concerns a method and apparatus for sharing integrated testing services with a plurality of autonomous remote clients.

10 All of the independent claims 1, 9, 10 and 11, as amended, and therefore all claims depending therefrom as well, include a limitation concerning a request that comprises a website customer interface. The interface comprises a customer identification number, a field for a nucleic acid sequence and a field for at least one genomics product. Neither Layne nor Seilhamer, alone or in combination, teach or suggest methods or computer programs that
15 include a customer interface, and do not teach an interface having the limitations as claimed. Therefore the references do not teach each and every limitation of the claims. Withdrawal of the rejection of Claims 1-4, 6, 9, 11 and 12 under 35 U.S.C. 103 (a) is therefore requested.

Rejection of Claims 1-4 and 6-12 Under 35 U.S.C. §103 (a)

20 Claims 1-4 and 6-12 were rejected under 35 U.S.C. §103 (a) as allegedly being unpatentably obvious over Layne (U.S. Patent No. 5,841,975) in view of Seilhamer (WO 06/23078) and Pati (WO 99/37755).

Pati concerns compositions and methods for targeting sequence modifications in one or more genes of a related family of genes using enhanced homologous recombination
25 techniques.

The rejection is traversed for the reasons discussed above. All of the independent claims 1, 9, 10 and 11, as amended, and therefore all claims depending therefrom, include a limitation that the request comprises a website customer interface as described above. Neither Layne nor Seilhamer, alone or in combination, teach or suggest methods or computer programs that include this limitation. None of the deficiencies in the Layne and Seilhamer references, as discussed above, is cured by Pati. Therefore the references do not teach each and every limitation of the claims. Withdrawal of the rejection of Claims 1-4 and 6-12 under 35 U.S.C. §103(a) is therefore requested.

10 **Newly added Claims**

Newly added Claims 13-20 recite limitations that are not taught or suggested by the art of record.

Claim 13 recites features of a website customer interface, as described above. For example, the input for the genomics product can include a pull down menu. The input for the nucleic acid sequence can include a field or a pointer. None of these features is taught or suggested in Layne, Seilhamer or Pati.

Claim 14 further limits the request as made in Claim 1. These limitations are not taught or suggested in Layne, Seilhamer or Pati.

Claim 15 depends from Claim 2 and recites features of a product report, wherein the report can include a nucleic acid sequence of a cloned gene, a protein sequence expressed by a gene, and results of drug screens against cell lines expressing a cloned gene. None of these features is taught or suggested in Layne, Seilhamer or Pati.

Claim 16 recites a limitation concerning querying the customer based on the redundancy of a request or nucleic acid sequence. This limitation is neither taught nor suggested in Layne or Seilhamer, alone or in combination.

5 Claim 17 recites a limitation concerning verification that the customer is in good standing. This limitation is neither taught nor suggested in Layne or Seilhamer, alone or in combination.

Claim 18 recites a limitation concerning data sent or viewed over a public network using encrypted connections or over a private or semi-private secured transmission line. This limitation is neither taught nor suggested in Layne or Seilhamer, alone or in combination.

10 Claim 19 recites a method for providing integrated genomic services. The method includes (a) receiving a first request from a customer, wherein said request comprises a first nucleic acid sequence and an order for at least two different genomics products; and (b) utilizing said nucleic acid sequence to provide said at least two different genomics services or products. The limitation of two *different* genomics products is neither taught nor suggested in
15 Layne or Seilhamer, alone or in combination, and is not taught in Pati.

Claim 20 recites several of the above mentioned limitations, including: ordering two different genomics products; a request made using a website customer interface; the use of encrypted connections; and verifying that the customer is in good standing. These limitations are neither taught nor suggested in Layne or Seilhamer, alone or in combination, and are not
20 taught in Pati.

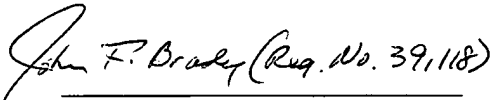
Conclusion

Applicants submit that amended Claims 1-4 and 6-20 satisfy all of the statutory requirements for patentability and are in condition for allowance. An early notification of the same is kindly solicited.

Respectfully submitted,

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